

6
CLAIMS

What is claimed is:

1. A biometer comprising:
a partial coherence interferometry (PCI) device connected to a microscope, said microscope being adapted to focus radiation from the PCI device to an eye.
2. The biometer according to claim 1, wherein said PCI device comprises an interferometer that directs a beam to a beam splitter, said beam splitter directing a portion of radiation incident thereon towards a lens of said microscope.
3. The biometer according to claim 2, further comprising a lens system, wherein said microscope is adapted to focus radiation incident thereon to a portion of an eye to generate a secondary radiation source on the portion of the eye, wherein radiation emanating from the secondary radiation source passes through said beam splitter and impinges upon said lens system.
4. The biometer according to claim 3, further comprising at least one photodetector adapted to detect radiation exiting said lens system.
5. The biometer according to claim 4, further comprising a processor in communication with and adapted to process an output from said at least one photodetector.
6. The biometer according to claim 2, wherein said interferometer comprises a Michelson interferometer, and a difference between path lengths of radiation traversing arms of the Michelson interferometer equals the product of the length and refractive index of a reference eye.
7. A method for performing biometry, comprising:
removing a lens from an eye; and
making biometric measurements with a PCI device aimed at the eye after removal of the lens therefrom.
8. The method according to claim 7, further comprising calculating optical features based on the biometric measurements and selecting an intraocular lens (IOL) in accordance with the optical features.
9. The method according to claim 7, further comprising making biometric measurements with the PCI device aimed at the eye after insertion of an IOL into the eye.
10. The method according to claim 7, further comprising making pre-incision biometric measurements with the PCI device.